

Glen Canyon Dam Adaptive Management Work Group
March 2-3, 2005

Conducting: Michael Gabaldon, Secretary's Designee
Facilitator: Mary Orton

Date: March 2, 2005
Convened: 10:05 a.m.

Committee Members:

Joe Alston, NPS
D. Larry Anderson, UDWR
Darryl Beckmann, USBR
Brenda Drye, Southern Paiute Consortium
Amy Heuslein, BIA
Leslie James, CREDA
Rod Kuharich, State of Colorado
Phillip S. Lehr, Colorado River Comm./NV

Clayton Palmer, WAPA
Andre Potochnik, GCRG
Ted Rampton, UAMPS
Nikolai Ramsey, Grand Canyon Trust
Bruce Taubert, AGFD
John Shields, WY State Engr. Office
Mark Steffen, Federation of Fly Fishers
Gerald Zimmerman, CRB/CA

Committee Members Absent:

John R. D'Antonio, NM Interstate Stream Comm.
Leigh Kuwanwisiwma, Hopi Tribe

Loretta Jackson Kelly, Hualapai Tribe

Alternates Present:

Steven Begay,
Max Oelschlaeger
Don Ostler
Sam Spiller
Tribal Chairman Charles E. Vaughn
Bill Werner

For:

VACANT, Navajo Nation
VACANT, Grand Canyon Wildlands Council
John R. D'Antonio, State of New Mexico
State Supervisor, USFWS
Loretta Jackson Kelly, Hualapai Tribe
VACANT, ADWR

Interested Persons:

Mary Barger, WAPA
Chris Beard, USGS/GCMRC
Mike Berry, USBR
Nora Bryant, USGS/GCMRC
Gary Burton, WAPA
Kerry Christensen, Hualapai Tribe
Lew Coggins, USGS/GCMRC
Jeff Cross, NPS/GRCANP
Jonathan Damp, Pueblo of Zuni
Bill Davis, CREDA
Phil Davis (Presenter)
Kurt Dongoske, CREDA
Helen Fairley, USGS/GCMRC
Dave Garrett, M³Research
Norm Henderson, NPS
Doug Hendrix, USBR
J.D. Kite, USGS/GCMRC
Glen Knowles, USFWS

Dennis Kubly, USBR
Paul Li, IEDA
Mike Liszewski, USGS/GCMRC
Jeff Lovich, USGS/GCMRC
Ted Melis, USGS/GCMRC
Anthony Miller, Colo. River Comm./NV
Mary Orton, The Mary Orton Company
Bill Persons, AGFD
Randall Peterson, USBR
Barbara Ralston, USGS/GCMRC
Ken Rice, USBR/Glen Canyon Dam
Tom Ryan, USBR
Jack Schmidt (Presenter)
D. Randolph Seaholm, State of Colorado
Pam Sponholtz, USFWS
Dave Topping (Presenter)
Dave Wegner

Meeting Recorder: Linda Whetton, USBR

Introductions and Administrative Items. The Secretary's Designee, Mike Gabaldon, welcomed the members, alternates, and members of the public.

Status of AMWG Member Appointments. Mike reported the current AMWG nomination package is being reviewed in the White House and then it will go to the Secretary Gale Norton for her approval. The present AMWG membership will be operating under an extension (**Attachment 1**) in order to conduct business for this meeting. Even though there were a few new members, a quorum was established.

Mike thanked the outgoing members for their work on the AMWG: Robert Begay, Pam Hyde, and Arden Kucate. He welcomed the new members Steven Begay, who is replacing Robert Begay from the Navajo Nation; Max Oelschleager, who was Pam Hyde's alternate from the Grand Canyon Wildlands Council; and Carleton Albert Sr. who is replacing Arden Kucate from Pueblo of Zuni. He also mentioned Brenda Drye is back with the AMWG after a year's absence and Sam Spiller, who has been the USFWS alternate will now be appointed as the official AMWG representative. He extended a special welcome to Tribal Chairman Charles E. Vaughn alternate for Loretta Jackson Kelly, representing the Hualapai Tribe.

Approval of the October 24-25, 2004 Meeting Minutes. Pending a few corrections and without objection, the minutes were approved.

Follow-up to Conflict of Interest/Procurement Concerns. Referencing the discussion with Bob Snow at the last AMWG Meeting (page 11 of Oct. 25-26, 2004 Minutes), Bruce Taubert asked Mike if he had received anything from Bob. Mike said he hadn't but would check with Bob and report back to the AMWG.

Action Item: Mike Gabaldon said he would contact Bob Snow (Washington Solicitor's Office) today and report back to the AMWG on the status of the conflict of interest/procurement concerns.

Legislative Updates

Energy Policy Act. Randy Peterson reported there has been no progress.

President's Budget Proposal. Leslie James said the President's budget proposal contains language that would potentially change the basis for rate making for WAPA to go from cost-based rates to market-based rates. CREDA hasn't seen any legislation but it could impact 33 states and those power consumers served by Power Marketing Administrations (PMAs). The rates could raise as much as 20% per year so it has the attention of all the preference customers. She said it was another attempt by the Office of Management and Budget (OMB) to balance the Federal budget for the President. It's bad for the region and would exacerbate the problems with the Basin Fund.

FY06 President's Budget. John Shields asked if it would be an appropriate time to hear about the President's budget proposal for FY06 and the increases for biological monitoring. Mike said it would be added to the agenda when the other budget items are discussed.

Old Business

Tribal Consultation Plan. Dennis Kubly reported the DOI agencies have met via a conference call regarding the Tribal Consultation Plan. Some comments were drafted but they weren't sent to the tribes because there isn't a plan that has been agreed upon by all the tribes. He said the

tribes need to draft comments on #11 and then the DOI agencies will respond. The plan would then be brought back to the AMWG for their approval.

Retreat Follow-up on Roles and Responsibilities. Mike reminded the group that he had appointed an ad hoc group to discuss the roles and responsibilities for the AMWG, TWG, GCMRC, and the Science Advisors. The Roles Ad Hoc Group (Randy Peterson, Jeff Lovich, Norm Henderson, and Dave Garrett) has convened and will provide some recommendations at the next AMWG meeting.

Action Item: The Roles AHG will provide some recommendations to the AMWG at their next meeting as a result of follow-up discussions from the AMWG Retreat (June 2004).

FY05 Tribal Funding. Mike reported that Assistant Secretary P. Lynn Scarlett prepared a memo which stated funding for the tribes would be assessed to each of the DOI agencies by the Secretary and then distributed to the tribes in contracts. He distributed copies of the memo dated February 8, 2005, (**Attachment 2**) and said there will be further follow-up with the tribes. Randy Peterson added that Reclamation is in the process of establishing those contracts and hopes to have them ready in the next two weeks. Brenda Drye requested that Reclamation come to Kaibab to discuss the contracts once they are ready.

DOI Updates. Mike reported that Bennett Raley, former Assistant Secretary for Water and Science (ASWS), left at the end of last year to pursue other endeavors in Colorado. Tom Weimer is currently Acting ASWS and has been involved in many Colorado River water issues. Also, Ms. Scarlett has been named the new deputy secretary. Mike said he wasn't sure when her Senate confirmation dates would be scheduled.

Technical Work Group Report. The TWG Chair, Norm Henderson, said the TWG met on February 2-3, to deliberate on the FY06 draft budget. They had hoped to meet earlier but couldn't due to the high flow test and delivery of the budget. He distributed copies of his PowerPoint presentation (**Attachment 3**) and expanded on the following items:

- The TWG feels completion of the Humpback Chub Comprehensive Plan would be advantageous and passed a motion to that effect.
- The TWG also feels strongly that the Humpback Chub Genetics Plan needs to be completed and is an integral part for completing the HBC Comprehensive Plan. The Colorado River Recovery Implementation Plan has been deficient in completing the genetics plan and TWG feels that AMWG may need to explore options for getting that work completed.

Bruce Taubert commented there are many incomplete assignments and expressed frustration that more work hasn't been completed. He questioned if the AMWG can have any realistic expectations given that many products are behind schedule. Norm Henderson said GCMRC would provide more specific updates on some of the plans later in the day.

Public Outreach Ad Hoc Group (POAHG) Update. Amy Heuslein reported that since Pam Hyde has left the AMWG, Andre Potochnik will serve as the other co-chair for the POAHG. Amy referenced the materials provided in the pre-meeting packet (**Attachment 4a**) and then gave a PowerPoint presentation (**Attachment 4b**). Andre read three motions the POAHG wanted the AMWG to consider. After some discussion the following motions were passed:

Motion: AMWG approves the logo, catch phrase, outline of stationary display at Glen Canyon Dam, and the AMP website anonymously hosted by Reclamation www.gcdadaptivemanagement.gov, all as presented to AMWG.

Passed by a vote of 18 yes, 0 no, and 2 abstain.

John Shields (abstaining): I have been serving on the POAHG so my vote may be biased.

Clayton Palmer (abstaining): I haven't been focused on the discussion.

Motion: AMWG delegates to POAHG these specific authorities:

- 1) Posting to and updating of AMP website (AMWG retains review opportunities on new materials via email prior to posting)
- 2) Identify new topics for Fact Sheets and start creating them,
- 3) Finalize strategy for Glen Canyon Dam Display with Reclamation review and involvement,
- 4) Speak to media on rapid response items via Secretary's Designee and/or Interior public relations, including the five-day AMWG review for the rapid response process, and
- 5) Develop, finalize, and distribute guide resources.

Passed by a vote of 15 yes, 1 no, and 1 abstain.

Motion: AMWG authorizes

- 1) A continuing budget line item of \$50,000/year with carryover from year to year, not to exceed \$25,000 (for a total of \$75,000),
- 2) POAHG to recommend service contracts to the Bureau of Reclamation to complete necessary duties and products, and
- 3) POAHG to report public outreach budget details annually to the TWG Budget Ad Hoc Group for review in a timely manner.

Passed by a vote of 14 yes, 5 no, and 1 abstain.

John Shields (abstaining): I have been serving on the POAHG so my vote may be biased.

Action Item: Any additional comments or suggestions on the materials distributed by the POAHG should be sent to Andre Potochnik by March 16, 2005.

Fine Sediment Synthesis. Ted Melis introduced Dave Topping and Jack Schmidt and said they would present the final results of 10 years of study. He referenced the following reports:

- 1) "System-wide Changes in the Distribution of Fine Sediment in the Colorado River Corridor Between Glen Canyon Dam and Bright Angel Creek, Arizona" (**Attachment 5a**) prepared by John C. Schmidt, David J. Topping, Paul E. Grams, and Joseph E. Hazel.
- 2) "The Degraded Reach: Rate and Pattern of Bed and Bank Adjustment of the Colorado River in the 25 km Immediately Downstream from Glen Canyon Dam" (**Attachment 5b**) prepared by Paul E. Grams, John C. Schmidt, David J. Topping, and Sara Goeking.

Dave Topping presented a PowerPoint presentation, "Computation and Analysis of the Instantaneous Discharge Record for the Colorado River at Lees Ferry, Arizona – May 8, 1921, through September 30, 2000" (**Attachment 5c**).

Jack Schmidt gave a PowerPoint presentation on "Historic Changes in Fine-Sediment Storage Downstream from Lees Ferry" (**Attachment 5d**).

Rod Kuharich asked what the impacts of a BHBF would have in keeping sand in the system long-term. Jack said they have seen that floods temporarily put sand up on the banks but the resumption of normal dam operations quickly erodes that sand away. He suspects there will be nothing left from the high fluctuating flows in January and also said the 1996 flood effects are

gone. When asked if the same would be seen with low steady flows, Dave Topping said they observed with sediment transport data relative to July 1 through the floods of November 2004, the sediment deposit was positive down to Mile 30.

Randy Peterson said one of the high elevation graphs showed there was more sand post-1996 than there was pre-1990. He asked if the objective was high elevation sand deposits or putting more sand in the eddies. Jack said that depending on whether 12 or 14 NAU sites were used, they would have to calculate the average back to where it was in 1990. He added there are places that are degraded substantially since the 1996 floods. Jack said the architecture of the sandbars create backwater habitats (July 1956 slide). The river spent most of its time being really low which meant there was lots of sand exposed at the low elevation of the river.

Jack concluded his presentation by stating that the Grand Canyon is a high-energy system. The reason the sand bars were high in the pre-dam period is because they got scoured away and rebuilt every year but the episodes in between rebuilding episodes was much less. The backwaters were highly variable and the eddies were full of sand.

Science Advisors Update. Dave Garrett distributed copies of the following documents: (1) Science Advisor Report: Science Advisors Review of GCMRC Strategic Science Plan and Core Monitoring Plan (**Attachment 6a**) and (2) Prospectus, A Review of the Glen Canyon Dam Adaptive Management Program (**Attachment 6b**). He then proceeded with a PowerPoint presentation (**Attachment 6c**). Dave said the science advisors will provide a report in July/August on the preliminary results of the adaptive management program and a final report in October 2005.

Clayton Palmer expressed concern as to whether the science advisors have fidelity to the law and policies that govern the AMP. He suggested as part of their review process the science advisors have conversations with AMWG members. He also requested the AMWG be allowed to see the science advisors' draft report and be allowed to make comments before the report is finalized. Dave concurred and said it was their intent to interview all AMWG and TWG members, and GCMRC specialists.

GCMRC Updates. Jeff Lovich said his staff is prepared to make their presentations but given the limited time on the agenda for each update, he asked that questions be held until after all the presentations had been made.

Core Monitoring Plan Update – Jeff gave a PowerPoint presentation (**Attachment 7a**) and asked if the AMWG supported the timeline and process. Bruce said the AMWG would if the update could be ready for review at the next AMWG meeting.

Long-Term Experimental Plan – Jeff gave a PowerPoint presentation (**Attachment 7b**). He said that GCMRC is not the lead on this plan but that a recommendation had come out for GCMRC to help with the plan. He said GCMRC would like a clear identification of an experimental plan and to identify the policy constraints upfront. Clayton said he didn't support the timeline but would talk with Jeff about his concerns later.

Strategic Science Plan Update (**Attachment 7c**). Jeff said there is no update required as GCMRC has postponed this effort due to work required on other products.

Warm Water Fish Suppression Program. Barbara Ralston said Lew Coggins provided an update on the program (**Attachment 7d**) in October 2004 and the AMWG approved going forward with the workshop. The total funding was \$300,000 a year. Barbara said there is no specific line item

identified in the budget for the workshop or a suppression program and GCMRC is recommending using the AMWG/TWG requests line item funds to put on a workshop. However, more discussion would need to focus on how to fund the program in the long-term. She questioned if convening a workshop and developing a plan is a prudent use of time and money if there isn't a long-term commitment to support the program. She is also checking with Glen Knowles (USFWS) to see if there is FWS support for this project. Barbara estimates the workshop would cost between \$20,-30,000.

Motion: To approve the TWG's recommendation to reprogram funds for a GCMRC symposium on warm water fish suppression from line #150, "AMWG-TWG requests."
Passed by a vote of 17 yes, 0 no, and 0 abstain.

SCORE Report Update (**Attachment 7e**). Jeff said the draft should be completed in August and then the TWG and AMWG would have an opportunity to review it.

Nikolai Ramsey said the Grand Canyon Protection Act requires an update on what's happening to the resources. He doesn't think the AMP has adequately taken care of the multiple responsibilities for working on the resources. He asked if it made sense to form an ad hoc group to explore how best to pull together information to meet multiple obligations. He feels there is a lot of ambiguity about where end products go and what things are done annually. Clayton said the purpose of the SCORE Report was to fulfill the GCPA commitment. He expressed concern that there shouldn't be two processes in completing the report and supports the TWG's recommendation on modifying this particular report and its processes.

Bruce said he didn't support creating another ad hoc group. He feels the task could be assigned to a few individuals and completed in one day.

Randy Peterson stated the only required report of the program is the Annual Report to Congress, and the SCORE Report was developed only to provide input to that Report.

Concurrent HBC Estimates. Lew Coggins said GCMRC has been directed by the DOI AMWG members to contract out simulations on the efficacy of different monitoring programs for HBC in Grand Canyon in lieu of conducting an actual field effort on abundance. He has been in contact with Dave Otis in trying to coordinate on a FWS effort. He said Jeff Lovich had sent letters to AGFD as well as to FWS Regions 2 and 6 offering to have them become involved in this and the simulations before the work was initiated. At this point in time, Dr. Otis is preparing a proposal with a list of study objectives in the next few weeks. The FWS and AGFD have indicated their willingness to participate in providing input on how those study objectives are designed. Once they have Dr. Otis' proposal, a meeting will be convened to help define the objectives. Dr. Otis has also committed to providing a representative at the July AMWG meeting to share the results of that meeting, present a draft report by August, and a final report in December. Lew said he understands there are funds for field sampling in FY06 so the only hindrance would be the permitting and getting the work started.

Clayton said the reason the concurrent issue came up was that GCMRC had scientific protocols for counting fish which differed from those of the FWS. The FWS needs to count fish in the Grand Canyon to get a baseline to update the fish population information that might lead to downlisting the fish. He feels the AMWG should fund the work with the goal of resolving the differences in how the fish are counted. Bruce said that when they start with a population estimate, the Service has to agree with the number unless their methodology is used. The AMWG agreed to do a concurrent sampling. Dennis Kubly reminded the AMWG they passed a motion (March 2004) and Reclamation proceeded with simulation modeling. Clayton said the

DOI agencies involved have a responsibility to provide the AMWG with more conclusive results at the end of the simulation. Bruce stated that at some point in time Region 6 has to determine what method is going to be used.

Results from Geomorphology Workshop. Helen Fairley provided the workshop results on compact disks.

Humpback Chub Genetics. Barbara Ralston distributed copies of an update (**Attachment 7f**) from Mike and Marliiss Douglas. She reported they have alerted GCMRC, per the terms of their interagency agreement, that their results have been delayed by one year, and they will make a presentation in January 2006. Bruce expressed frustration that this work has been delayed and suggested this may be a reason to avoid interagency agreements in favor of contracts.

6 Month Update Flows Experiment and 05-06 Experiment. Lew Coggins said the biological components associated with experimentation in 05-06 included mechanical removal, pre- and post-test flow hoop net sets in the vicinity of the LCR confluence, and Kanab ambersnail habitat preservation efforts associated with the test flow. Fewer humpback chub were caught in hoop nets following the test flow than were caught prior to the test flow. He gave a PowerPoint presentation (**Attachment 7g**).

Results of Hoopnet Sampling to Examine Changes in Juvenile Humpback Chub Abundance and Size Before and After the 2004 Experimental High Flow. Lew Coggins gave a PowerPoint presentation (**Attachment 7h**). He said the datapoints were not provided in the handout but he would provide copies. Andre Potochnik asked if it was reasonable to assume there was high mortality of the young that disappeared from the LCR because (1) the conditions in which sampling was done were different, (2) not sure of their fate and assumptions were made, or (3) they suffered mortality because of high brown trout. In addition, he wondered if it wasn't reasonable to assume that highly turbid conditions were a natural mechanism for disbursing the fish. Lew said they don't understand turbidity very well in the use of hoopnets and don't know if the fish are dead. He said the fish in that rearing area have mostly been transported out of the reach and the ones that make it end up in downstream aggregations. Therefore, relative to their recovery, the reproductive center, a majority of them are lost.

Update on Preliminary Experimental Results Associated with the November 2004 High Flow at Glen Canyon Dam. Ted Melis said the first part of his presentation would focus on the sediment component last summer/fall to now. He said sand transport monitoring continues in order to document the effects of the non-native fish suppression flows on the sand mass-balance. Large Paria inputs occurred from January 10–12 and export rates for the 5–20 kcfs fluctuations are expected to be high under these sediment enriched conditions. Estimates of the magnitude of the Paria inputs and subsequent export (and thus the remaining sand) were provided in a PowerPoint presentation (**Attachment 8**) given by Dr. Dave Topping.

Ted Melis continued the presentation and said they are trying to get more clarification from the AMWG to better understand the motions from last August as they relate to the FY05 budget. He reviewed some of the motions that were passed. This year they are replicating mechanical removal and continuing with years 4 and 5. He said there is still support for Scenarios 2 or 4 but they need further clarification. Under the No Sediment scenario, operations will be experimental whether there is a sediment trigger or not. All of the scenarios have budget implications for FY06. He provided a review of the sediment scenarios along with questions for the AMWG:

Scenario #1 = Autumn Sediment Input Scenario – summer-fall Paria River sand inputs meet/exceed trigger and are followed by constrained operations through December and an EHF

(42,000-45,000) tested in January. The GCMRC believes that this is the option (with variation in timing of the EHF from January to November) that was implemented in 2004. Do the members agree?

Scenario #2 = Winter Sediment Input Scenario – January-March Paria River sand inputs meet/exceed trigger and are followed immediately by an EHF (42,000-45,000) test release. The GCMRC reported in January 2005 that the Paria River trigger very likely occurred between January 1-14. However, the AMWG motion of August 2004 recommended not to implement an EHF test in 2005. Is there still support to conduct this test?

Scenario #3 = No Sediment Input Scenario – summer-fall Paria River sand inputs do not reach trigger through December. ROD operations continue until January-March experimental flows commence (since modified by 2004 Supplemental Environmental Assessment). Is SS transport part of this?

Scenario #4 = Habitat Maintenance Flow Scenario – summer-fall Paria River sand inputs meet/exceed trigger and are followed by HMF operations (at least one and perhaps up to several times) through December and are followed by an EHF (42,000-45,000) tested in January. Is there still support to conduct this test?

Mary said GCMRC is looking for direction from the AMWG on experimental actions for FY05 and 06. If something is going to be done in FY06, then they need to start planning soon. The only experimental action in the current version of the draft FY06 budget is mechanical removal. All of the scenarios have had compliance completed.

Randy Peterson said the original plan was between scenarios 1 or 2 and 4, and which was going to be more effective for conserving sediment. Ted said they reviewed all sediment treatments and questioned if there was a need to test scenario 1 or whether they were done doing sediment experiments.

Clayton said the questions Ted posed would take considerable time for the AMWG to discuss and wondered if more time should be added to the agenda. Max Oelschlaeger stated that much of the data is preliminary and the AMWG should only be making decisions based on solid analyses. Rod said his impression with the 1996 was both good and bad and that the AMWG needs to identify if problems were created before doing a second flow. He suggested waiting until they could find out what the impacts might be.

Mike said additional questions may come up in the FY06 budget discussion scheduled for tomorrow. As such, he suggested the AMWG start earlier tomorrow morning to allow for more discussion.

Update on 2003 and 2004 Mechanical Removal Effort. Lew Coggins gave a PowerPoint presentation (**Attachment 9**).

Colorado River Basin Hydrology. Tom Ryan gave an update on the current basin hydrology via a PowerPoint presentation (**Attachment 10**). (Further details on the individual slides can be found at the end of the above attachment).

Glen Canyon Dam Adaptive Management Work Group
March 2-3, 2005

Conducting: Michael Gabaldon, Secretary's Designee
Facilitator: Mary Orton

Date: March 3, 2005
Convened: 7:30 a.m.

Committee Members:

Joe Alston, NPS
D. Larry Anderson, UDWR
Darryl Beckmann, USBR
Brenda Drye, Southern Paiute Consortium
Amy Heuslein, BIA
Leslie James, CREDA
Loretta Jackson Kelly
Rod Kuharich, State of Colorado
Phillip S. Lehr, Colorado River Comm./NV

Clayton Palmer, WAPA
Andre Potochnik, GCRG
Ted Rampton, UAMPS
Nikolai Ramsey, Grand Canyon Trust
Bruce Taubert, AGFD
John Shields, WY State Engr. Office
Mark Steffen, Federation of Fly Fishers
Gerald Zimmerman, CRB/CA

Committee Members Absent:

John R. D'Antonio, NM Interstate Stream Comm.
Leigh Kuwanwisiwma, Hopi Tribe

Alternates Present:

Steven Begay,
Max Oelschlaeger
Don Ostler
Sam Spiller
Tribal Chairman Charles E. Vaughn
Bill Werner

For:

VACANT, Navajo Nation
VACANT, Grand Canyon Wildlands Council
John R. D'Antonio, State of New Mexico
State Supervisor, USFWS
Hualapai Tribe
VACANT, ADWR

Interested Persons:

Mary Barger, WAPA
Chris Beard, USGS/GCMRC
Mike Berry, USBR
Nora Bryant, USGS/GCMRC
Gary Burton, WAPA
Kerry Christensen, Hualapai Tribe
Lew Coggins, USGS/GCMRC
Jeff Cross, NPS/GRCANP
Jonathan Damp, Pueblo of Zuni
Bill Davis, CREDA
Phil Davis (Presenter)
Kurt Dongoske, CREDA
Helen Fairley, USGS/GCMRC
Dave Garrett, M³Research
Norm Henderson, NPS
Doug Hendrix, USBR
Rick Johnson, Grand Canyon Trust
J.D. Kite, USGS/GCMRC
Glen Knowles, USFWS

Dennis Kubly, USBR
Paul Li, IEDA
Mike Liszewski, USGS/GCMRC
Jeff Lovich, USGS/GCMRC
Ted Melis, USGS/GCMRC
Anthony Miller, Colo. River Comm./NV
Mary Orton, The Mary Orton Company
Bill Persons, AGFD
Randall Peterson, USBR
Barbara Ralston, USGS/GCMRC
Ken Rice, USBR/Glen Canyon Dam
Tom Ryan, USBR
Jack Schmidt (Presenter)
D. Randolph Seaholm, State of Colorado
Pam Sponholtz, USFWS
Barbara Steffen, Federation of Fly Fishers
Dave Topping (Presenter)
Dave Wegner

Meeting Recorder: Linda Whetton, USBR

Introductions and Administrative Items. The Secretary's Designee, Mike Gabaldon, welcomed the members, alternates, and members of the public.

Agenda Changes. Due to some items not being presented at yesterday's meeting, the agenda was revised as follows: Remote Sensing presentation, USGS overhead presentation, FY04 fiscal Accounting, NPS Admin Costs, and the FY05 budget changes/FY06 budget. Mary Barger reminded the chairman that WAPA wanted to discuss the Long-Term Experimental Plan.

Remote Sensing. Ted Melis said this presentation was given to the TWG in October 2003 and the report was finalized six months ago. Phil Davis said he would only discuss the imaging requirements and omit the elevation in order to allow for more questions following his presentation (**Attachment 11**).

Phil said there are two ways to get topography, (1) stereo image data, which is very expensive, and (2) lidar. Lidar is a laser system and creates its own light so it can be obtained anytime except when it's raining. Lidar only provides the elevation that the laser hits and only gives topography. Phil said lidar was used in November before and after the experiment in six reaches above the LCR. Each site was flown over 4 times, 15 cm vertical accuracy for six reaches before and after the flow. The data will be here on Friday. This system produces 50 mm spot spacing. The higher one flies, the wider the spot spacings. At 100 meters off the ground, the spot spacings are 100 centimeters. They intend to fly four bands this summer.

Ted said the proposal to do this one way as opposed to the other has an impact for the future. The majority of monitoring data for this program will be stored as imagery and will come from the sensors vs. from other means of sampling and gathering information. This is a systematic attempt to get the best data and use the various techniques to get monitoring. Phil said the requirements for both are the same. You can do an inventory without having periodically consistent data. If you want to do an analysis once and calibrate data, you can do an inventory but for monitoring purposes the cost effectiveness of getting data that is consistent year after year is phenomenal. To take one image and calibrate so that it is consistent with another would take about an hour. The GCMRC requires orthorectifying each image and putting into a mosaic. All their data is in map quads with a little overlap. They are all mosaics for the scientists to use.

USGS Overhead Primer. Jeff Lovich introduced Chris Beard, budget analyst at GCMRC, and J.D. Kite, administrative officer at GCMRC, and said they will assist with the budget discussions as needed. Jeff distributed copies of a document (**Attachment 12a**) prepared by Denny Fenn which described how the USGS applies overhead charges:

- Southwest Biological Science Center (SBSC) Rate on Reimbursable Funds = 35%. GCMRC is the largest of the four field stations that comprise SBSC.
- DOI Preferred Customer rate = 15%. Of this collection, 10% currently goes to USGS Headquarters and 5% stays with SBSC. This proportion will change each year until 2008 when it reaches 7.5% for each party, where it will remain.
- For funds that are passed through to outside research partners rather than being spent within the USGS, a special pass-through overhead rate of 6% is authorized, and no cost share is required. Of this amount, 3% goes to USGS headquarters and 3% stays with SBSC.
- SBSC rate on USGS funds = 19%. This amount is charged against USGS appropriated funds by the cost center in order to pay required overhead costs that would otherwise have to be paid by direct charge against these funds (this is a product of the overhead policy [and workbook] that identifies certain costs as "overhead" expenses).

Andre Potochnik asked if the \$1 million currently coming from the USGS in support of the AMP is expected to continue. Jeff said the \$1 million is covered under their cost share but stated there is no guarantee it will be the same in FY06 and beyond. He said that if they receive only \$750,000, it wouldn't cover the \$1 million cost of the overhead. If the director doesn't do that, the entire 35% would be levied against the program.

Clayton Palmer expressed frustration that between FY03 and FY05 the USGS budget included the expenditures of dollars from an anticipated \$1 million from appropriated funds for use in the AMP. However, those funds were not described as overhead in the budget document given to the AMWG and it appears the USGS actually siphoned off funds. Jeff said that Director Groat found himself in a position needing to make those charges and the USGS did a poor job in explaining what they had done.

Max Oleschlaeger said it's incumbent upon the AMWG to get the maximum amount of science in order to discharge the duties of the program. He suggested alternatives be developed to optimize the expenditure of funds and that perhaps the TWG and science advisors should be charged with that effort. Jeff responded that GCMRC is the only center in USGS to provide appropriated funds and relies totally on reimbursable funding. Jeff said he and Denny will continue to work through resolving the USGS funding concerns.

Clayton suggested an ad hoc group be created to do some strategizing on how best to resolve budget concerns. Darryl Beckmann said the TWG is already set up to review budget documents and didn't feel another group was needed. However, a new charge was given to the TWG:

Motion: Charge the TWG to explore ways to reduce administrative costs, including a cost/benefit analysis, and report to the AMWG at the Fall 2005 AMWG meeting.
Passed by a vote of 16 yes, 2 no, and 0 abstain.

FY04 USBR Fiscal Accounting. Dennis Kubly distributed copies of the USBR's Fiscal Accounting for FY04 (**Attachment 12b**) and noted the following:

- There was a change in the tribal funding dollars because Reclamation wasn't aware that one of the DOI agency's contributions went directly to the USGS. In addition, the USFWS contribution also went directly to GCMRC which reduced the amount in cooperative agreements that Reclamation administers. There is \$44,000 still outstanding but Reclamation expects to receive the billings from the tribes. As such, Reclamation has extended the period for the tribes to turn in their billings.
- The Public Outreach effort only spent \$4,000 last year leaving a balance of \$81,000.
- The TWG Chair is only being reimbursed for travel and per diem costs as the Park Service is picking up the labor costs for Norm Henderson.
- Reclamation is not sure what the compliance needs are. There is another line under the PA for remote sensing and that work was done in support of compliance and could've been put under this line item.
- The Programmatic Agreement contract is now in place. There were no expenditures for a treatment plan for Navajo Nation but that effort is underway in FY05.

Dennis also distributed copies of a pie chart (**Attachment 12c**) showing how Reclamation and GCMRC expenses were divided.

FY04 USGS Fiscal Accounting. J.D. Kite presented the FY04 USGS expenditures (**Attachment 12d**). He said the FY04 AMP budget was capped at \$8,420,000 and of that, GCMRC received \$6.6 million. However, GCMRC budget personnel were relatively new to GCMRC and didn't know how to interpret the AMP budget breakdown between USBR and GCMRC. In early January 2005, GCMRC budget personnel met with Reclamation staff to discuss the deficiency. As a result, Reclamation transferred \$848,000 which helped balance GCMRC's FY04 budget but they were still short \$2 million. In order to cover some of those costs, he pulled approximately \$640,000 out of the GCMRC burden and borrowed from other SBSC accounts. He said the mechanical removal effort was budgeted at \$586,000 but actually came in at \$850-900K.

Nikolai Ramsey asked how decisions were made to cut projects in FY04. Ted said that for the most part no projects were cut. He explained that some experimental projects couldn't be done because the sediment inputs hadn't come into the Paria River. The other projects were mostly scheduled to occur outside experimentation but none of those were cut. Barbara Ralston said the projects shown in a blue font had to do with HBC projects.

Rod Kuharich commented that the pie chart shows a majority of the outsourced work went to DOI and he asked if USGS got some of the outsourced work as well. He suggested that one way of reducing some of the administrative costs might be to have the money go directly to the USGS and avoid the overhead charges between the other DOI agencies.

J.D. said this was the first time GCMRC had presented actual expenditures and he intends to break down each FY05 project by travel, salary, contracts, and contractor (outsource) for presentation to the AMWG at their summer meeting. He added that Christine Beard has set up each project by an account making it easier to track expenditures on a regular basis.

Action Item: GCMRC (J.D. Kite) will provide a breakdown of FY05 expenditures to the AMWG at the summer AMWG meeting.

NPS Administrative Costs. Jeff Cross said his presentation would address concerns raised regarding the NPS permitting costs. He passed out copies of a Cost Recovery Estimate handout (**Attachment 13a**) and said his PowerPoint presentation (**Attachment 13b**) would focus on what the research permit coordinator does, the research done, and the legal authorities for charging the applicable fees. He referenced the different levels of review required before a request is approved. He has responsibility for the third level of review and also sits on the Project Review Board which makes referrals to the Superintendent. Jeff said that having one person handle all the permits reduces the administrative burden. He estimates they spend 8-10 times more time on GCMRC permits because of increased complexity. It's about 75% of the research coordinator's time. The AMP is not paying for the launch fees, so NPS is providing more than \$100,000 in in-kind services. There are costs that we are not charging.

Phil Lehr asked if the Park Service has considered just assessing a fee to all the rafters to offset these costs. Jeff said there are three categories: private boaters, commercial boaters, and administrative uses. He said all boaters behave the same and their impact is about the same. Phil asked if the Park Service would consider recovering the fees from research so the AMP could get more bang for its buck. Joe Alston said the program is already set up like that and it makes sense to operate under an Interagency Agreement. The Park Service isn't funded like other DOI agencies to absorb the costs. If they have to pull someone from GCMRC, they can but because there is so much activity, it would end up creating an accounting nightmare to keep

things in place. He said if it's the desire of the AMWG to do more accounting for the cost of the river trips, the Park Service can do that.

Steven Begay said the permitting process is another burden on the tribes and they don't see the funding and haven't seen any negotiations to get that information to the tribes. There are communities on the rim of the canyon and they consistently notify staff at Navajo Nation about the numerous activities taking place. He said Navajo Nation would be interested in negotiating an agreement with GCNP. However, it's his understanding that the Park Service only wants to negotiate with the president who is often very busy with other tribal activities. Steven said the Navajo Nation would like to continue those negotiations. Joe said the NPS research permits can be found online but that access across Navajo lands should be under the authority of the Navajo Nation. Steven said he was referring to the activity in the canyon and the Navajo Nation staff can't keep up with what's going on. Navajo Nation doesn't receive funds to regulate like the process like NPS.

FY06 Draft AMP Work Plan and Budget (Attachment 14a). Jeff Lovich distributed copies of an e-mail message (**Attachment 14b**) he sent on Feb. 15, 2005, to the TWG indicating the major changes to the FY06 budget (**Attachment 14c**). Chris Beard passed out copies of two correction tables along with a sheet indicating the changes made to specific line items (**Attachment 14d**) the TWG saw at their last meeting (Feb 2004). Jeff gave a PowerPoint presentation (**Attachment 14e**). Mary Orton distributed copies of the AMWG Program Priorities (**Attachment 14f**) to help the AMWG recall what they had established at the AMWG Retreat.

Comments:

- I would like to see the administrative costs and overhead charge shown separately in the USGS portion of the budget. (Palmer)
- Under Description of Duties in the AMWG Charter, it states "Define and recommend resource management objectives for development and implementation of a long-term monitoring plan" I would like to see the management objectives get more of a place in the budget than just a link in a table but actually would drive the budget. It's a better way to develop a work plan. (Ramsey)
- Why are we talking about the FY06 budget at this point in time? The TWG hasn't had time to review it. I expect the review to come from the TWG, not GCMRC. (Beckmann)
- The Integrated Water Quality Program may be covered by O&M costs but any money given to Reclamation comes from power revenues. It's another \$200,000 impact on the basin fund and should be included with the AMP budget. (James)
- The IWQP agreement was signed in 1999. When the cap was passed in 2001, we should've looked at whether it was inside or outside the program. Reclamation needs to look at it again and make a decision. (Peterson)

Action Item: Reclamation needs to review the IWQP Agreement and determine whether it falls within the purview of the AMP.

TWG Report – FY06 Budget. Norm Henderson distributed copies of his PowerPoint presentation (**Attachment 15**). He said the Budget AHG met in early December and came up with a recommendation to the TWG and ultimately to the Secretary's designee. He said the high flow test got in the way of the TWG reviewing the budget more thoroughly. He anticipates the TWG will review the FY06 budget and be prepared to make a recommendation to the AMWG at their summer meeting.

Comments:

- I would like the last slide if all the deadlines were met. I would also like to see a 2-page executive summary that would be prepared out of this that would state in a narrative fashion how all the pieces fit together would be valuable to the AMWG. This budget development plan is something I could live with if it comes to fruition. (Oelschlaeger)
- As far as direction on an 06 experiment, would it be possible for the TWG to look at a budget scenario of no experiment and one with experiment for us to consider at the next meeting? There is a lot of science that hasn't been analyzed and we'd be more comfortable before adding on another experiment. (Beckmann)
- We need to see a range of alternatives because the monitoring is not done and what impacts are on flow resources, HBC. (Ramsey)
- I remember an extensive discussion on flushing flows. It was going to be one flow analyzed to see if the same problems occurred. I don't think anyone contemplated a third one and now we don't even have the analysis. I'm unprepared to do one irregardless of what sediment is in the system because it will be needed. (Kuharich)
- We need to have is a long-term experimental plan. It's my responsibility as an AMWG member to advise the Secretary on her actions as they relate to the Grand Canyon. We have to come up with experimental actions. Science is secondary to improving a resource. I believe we need to instruct the TWG and GCMRC along these lines because I continue to hear despite the agreements made between TWG and GCMRC to move forward on the implementation of management actions that benefit resources and create experimentation where the knowledge is not there. (Palmer)

Motion: To direct TWG to bring FY06 budget options to the next meeting, with and without an experiment; that TWG develops a new timeline for the hybrid design LTEP as approved by AMWG in March 2004; and to adopt TWG's FY06 budget timeline, as follows:

Date	Action
March 4-17	GCMRC makes changes identified by TWG, BAHG, AMWG
March 18	GCMRC distributes revised work plan/budget to BAHG/TWG
March 19- April 7	BAHG reviews the revised budget and work plan and consolidates comments
April 8	BAHG distributes consolidated comments to GCMRC/SA
April 11-14	SA reviews budget, work plan, and BAHG comments and produces consolidated SA comments
April 15	SA distributes their consolidated comments to BAHG, TWG, GCMRC (and AMWG?)
April 11-21	GCMRC revises work plan/budget
April 22	GCMRC distributes revised work plan/budget and responses to comments to BAHG, TWG, and SA
May 18-19	TWG discussed work plan/budget and makes recommendations for AMWG mailout (summer AMWG mtg.)

Passed by a vote of 15 yes, 1 no, and 0 abstain.

Humpback Chub Comprehensive Plan Motion. Nikolai Ramsey passed out two motions (**Attachment 16**) revised from what was distributed in the AMWG packet for the AMWG to consider concerning the fate of the Humpback Chub Comprehensive Plan. He said the current plan is not a plan of action but a list of projects that might benefit HBC. He feels a determination

needs to be made in order to complete it as a plan and then to discuss how the plan would be implemented. He said the RIP issue is meant to be addressed in the second motion. Tom Czapla and Bob Muth in FWS Region 6 reviewed the motion and Tom sent his written approval for going forward. The passing of the motion isn't meant to dovetail with recovery goals and plans in Region 6 but they may be helpful later. Nikolai felt it would be important to get the plan finished and have some AMWG interaction as to what we should be done with it. He noted that the TWG approved the motions.

Leslie James said that in reading the first motion, it appears risk analyses of potential actions would be done first and she reminded the AMWG that those were not the responsibility of the AMP. Clayton said the HBC AHG had agreed to changing the order of things to be done but also suggested bringing it to the AMWG to settle the policy issues. He said it would be important to determine what the final use of the plan will be so that additional technical work would be focused on that result. Bill Persons said he thought Bruce Taubert had some of the same concerns that Leslie and Clayton had and said the bigger concern is getting participation from Region 6. He feels the AMP needs to be careful on doing too much work on the plan without having Region 6 involved.

Sam said that as far as the Service is concerned, Dale Hall (Region 2 regional director) is committed to seeing some type of recovery program for the lower basin. He has a RIPS WG report that address three species (HBC, Bonytail and razorback) and would like to see some effort from his staff if there is interest in a recovery implementation program. Clayton said one of the recovery goals was to develop hazwaste containment for the two bridges over the Little Colorado River to avoid a toxic spill. He said nothing has been accomplished in the past two years because that effort was perceived as being outside the area of AMWG action. He would like to see a development toward improving the status of HBC in Grand Canyon and meet all the recovery goals.

Dave Garrett said the science advisors have been clear on the resource issues in the canyon and they consider the HBC one of the resources that should be of greater concern with focus and action. The SAs interpreted the Comprehensive Plan as a science plan which contained a series of projects that needed to be addressed. However, that effort was lessened. The SAs feel the plan should be completed.

Motion: The AMWG also directs the creation of a humpback chub implementation plan Ad Hoc Group. This Ad Hoc Group will:

1. Determine which actions identified in the humpback chub comprehensive plan can be accomplished under the AMP.
2. Explore the various options for completing actions that do not fall under the authorities of the AMP.

Passed by a vote of 15 yes, 0 no, and 1 abstain.

Motion: The AMWG directs the TWG to further develop the humpback chub comprehensive plan, as follows:

1. Describe linkages, sequences, and feedback loops among projects
2. Identify priorities and a timeline for completion of each action within the comprehensive plan.
3. Spell out specific steps and criteria for any actions that would be needed if a crisis occurs (e.g., severe population decline).
4. Continue to include active participation by GCMRC staff and any additional expertise.

5. Incorporate comments from the Science Advisors. The TWG will include a response to comments document in their final draft.

Passed by a vote of 10 yes, 4 no, and 2 abstain.

Gerald Zimmerman (abstaining): You need to complete the actions under #1 or have them fully integrated in order to determine how they're going to fit together. If the same group is looking at it, it may occur.

Phil Lehr (abstaining): I have a problem with #5. I think they're getting out of their area of authority and this should be a FWS activity.

Action Item: For those members who are interested in serving on the new HBC Comprehensive Plan Ad Hoc Group (HBCCP AHG) contact Linda Whetton by March 21, 2005.

Action Item: For those members who are interested in serving on the new HBC Implementation Plan AHG (HBCIP AHG) contact Linda Whetton by March 21, 2005.

Status of the Basin Fund. Clayton Palmer referred to the spreadsheet (**Attachment 17a**) that was included in the AMWG pre-meeting packet. It shows the balance of the basin fund ending with \$27 million by the end of 05. It also shows expenditures and revenues for FY06 ending at \$5.9 million which WAPA considers critically low. Since this material was sent to the AMWG, the forecasts have improved with releases from other CRSP units. In addition, WAPA and Reclamation have undertaken expenditures reduction so there is a new forecast of \$30 million.

Leslie reminded Clayton that the \$30 million didn't include any costs for lidar or aerial photography. Clayton concurred and said that if there is a change in the hydrological condition, the Basin Fund balance would be affected. He also said the amount doesn't include any expenses having to do with experimentation. Clayton will provide a revised spreadsheet (**Attachment 17b**).

Changes in FY05 Budget for Remote Sensing. Following up from this morning's discussion, Mike asked if there was any objection to having GCMRC implement remote sensing in FY05. Jeff Lovich said they have having a problem getting people to do the work but it's not for lack of funding.

Nikolai said he saw projects in the budget that were minimized and he wasn't comfortable agreeing to do remote sensing without know what other projects in FY05 were impacted. He would like to see the TWG review what GCMRC is proposing and possibly convene a conference call before actually making any changes. Jeff said it will take some time to get a contract in place and GCMRC needs to know as soon as possible what the AMWG will approve.

Motion. Authorize the change in technology in remote sensing in FY05 per the GCMRC proposal in FY05.
Motion seconded.

Ted clarified that the AMWG approved \$1 million to review the impacts on sediment. The funds to be used for remote sensing are part of that fund. In the FY05 budget, the mechanical removal effort is over \$205,000. The proposal is to use the available remote sensing dollars to do the work in 05.

Rod said he didn't want to jeopardize the mechanical removal work and withdrew his motion because there wasn't sufficient time for discussion.

PA Signatory Update. Mike Berry reported that last August Reclamation sent a letter to all the current PA signatories regarding the proposed addition of WAPA, CREDA, and BIA. Responses were received from the Advisory Council on Historic Preservation, the State Historic Preservation Officer of Arizona, the Intermountain Region of the National Park Service, and the Hopi Tribe. They moved forward to dispute resolution. They're currently in the informal discussion to see if they can amend the PA signatory page. If they do not succeed in their discussions, they have to send a request to the advisory council for their recommendations. Mike anticipates that a letter will be forthcoming within a week.

Meeting Review.

Darryl requested that future meeting agendas be prepared to allow more discussion time on critical program issues. With approval of the FY06 budget being sought for the next AMWG meeting, he wants there to be adequate time to allow for in-depth discussions.

Nikolai suggested the AMWG consider adding an additional meeting day.

Meeting adjourned: 2:50 p.m.

General Key to Adaptive Management Program Acronyms

ADWR – Arizona Dept. of Water Resources	KAS – Kanab ambersnail (endangered native snail)
AF – Acre Feet	LCR – Little Colorado River
AGFD – Arizona Game and Fish Department	LRRMCP – Lower Colorado River Multi-Species Conservation Program
AGU – American Geophysical Union	LTEP – Long Term Experimental Plan
AMP – Adaptive Management Program	MAF – Million Acre Feet
AMWG – Adaptive Management Work Group	MA – Management Action
AOP – Annual Operating Plan	MO – Management Objective
BA – Biological Assessment	NAAO – Native American Affairs Office
BAHG – Budget Ad Hoc Group	NAU – Northern Arizona University (Flagstaff, AZ)
BE – Biological Evaluation	NEPA – National Environmental Policy Act
BHBF – Beach/Habitat-Building Flow	NGS – National Geodetic Survey
BHMF – Beach/Habitat Maintenance Flow	NHPA – National Historic Preservation Act
BHTF – Beach/Habitat Test Flow	NPS - National Park Service
BIA – Bureau of Indian Affairs	NRC - National Research Council
BO – Biological Opinion	NWS - National Weather Service
BOR – Bureau of Reclamation	O&M - Operations & Maintenance (USBR funding)
CAPA – Central Arizona Project Assn.	PA - Programmatic Agreement
cfs – cubic feet per second	PEP - Protocol Evaluation Panel
CRBC – Colorado River Board of California	Powerplant Capacity - 31,000 cfs
CMAHG – Core Monitoring Ad Hoc Group	Reclamation - United States Bureau of Reclamation
CRCN – Colorado River Commission of Nevada	RBT – Rainbow Trout
CREDA – Colorado River Energy Distributors Assn.	RFP - Request For Proposals
CRSP – Colorado River Storage Project	RIPSWG- Recovery Implementation Program
CWCB – Colorado Water Conservation Board	Scientific Working Group
DBMS – Data Base Management System	RPA - Reasonable and Prudent Alternative
DOI – Department of the Interior	SA - Science Advisors
EA – Environmental Assessment	Secretary - Secretary of the Interior
EIS – Environmental Impact Statement	SPAHG – Strategic Plan Ad Hoc Group
ESA – Endangered Species Act	SWCA - Steven W. Carothers Associates
FACA – Federal Advisory Committee Act	TCD - Temperature Control Device
FEIS – Final Environmental Impact Statement	TCP - Traditional Cultural Property
FRN – Federal Register Notice	TES - Threatened and Endangered Species
FWS – United States Fish & Wildlife Service	TWG - Technical Work Group
FY – Fiscal Year (October 1 – September 30)	UCR - Upper Colorado Region (of the USBR)
GCD – Glen Canyon Dam	UCRC - Upper Colorado River Commission
GCMRC – Grand Canyon Monitoring & Research Center	UDWR - Utah Division of Water Resources
GCNP – Grand Canyon National Park	USBR - United States Bureau of Reclamation
GCNRA – Glen Canyon National Recreation Area	USFWS - United States Fish & Wildlife Service
GCPA – Grand Canyon Protection Act	USGS - United States Geological Survey
GUI – Graphical User Interface	WAPA - Western Area Power Administration
HBC – Humpback Chub (endangered native fish)	WY – Water Year (a calendar year)
HMF – Habitat Maintenance Flow	
HPP – Historic Preservation Plan	
IEDA- Irrigation & Electrical Districts Assoc. of Arizona	
IN – Information Need	
IT – Information Technology	